# Flora and Fauna Assessment 174 Muntz Road, Ashbourne

## **Prepared for Ashbourne Landcare Group**



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### 1.0 INTRODUCTION

#### 1.1 Background

In 2021, the Ashbourne Landcare Group commissioned the author to conduct flora and fauna assessments across twelve private properties occurring within the Ashbourne district. The project was funded by a grant provided by the North Central Catchment Management Authority (NCCMA).

The surveys confirmed that the private lands across the Ashbourne district are of very high conservation significance. The following ecological values were recorded across the 12 properties:

- 306 separate plant species, 220 which are indigenous and 86 introduced,
- 59 separate bird species,
- eight plant species listed as *Endangered* or *Critically Endangered* under the Flora and Fauna Guarantee List,
- numerous plant species of regional significance,
- 43 of the plant species observed have not previously been (officially) recorded in the area according to a 10km radius search of the Victorian Biodiversity Atlas (VBA). Twenty-five of these are indigenous and 18 are introduced.

This report presents the results of the flora and fauna assessment at 174 Muntz Road, Ashbourne. It provides a list of the flora and fauna species that were recorded, a description of vegetation and habitat values and some recommendations for the maintenance and enhancement of ecological values.

#### 1.2 Study area

The study area is part of a property located at 174 Muntz Road, however the bushland area assessed is adjacent to and accessed via Einsporns Road. This area of the property is 28 hectares in size. The eastern portion supports bushland while the paddocks to the west are mostly treeless and contain three separate dams. A house and associated gardens is located in the northern section of the bushland area.

#### 1.3 Methods

The property was assessed for approximately three hours on the 23<sup>rd</sup> of November 2021. Due to the large size of the property and time constraints, the survey was confined to the bushland area in the east and around the dams in the central section. These areas were traversed on foot and a list was compiled of all flora and fauna species observed. For fauna, most species were recorded from identification of calls (e.g. birds, frogs) or scats and tracks (e.g. Black Wallaby). Notes were taken on the vegetation, habitat features and management issues, whilst photographs were taken of representative areas.

## 2.0 RESULTS

#### 2.1 Flora species

During the November 2021 survey, a total of 118 flora species were recorded at 174 Muntz Road (see Appendix 1). Of these, 90 are indigenous species and 28 are introduced or non-indigenous native species (e.g. Cootamundra Wattle from southern NSW). Two of the species recorded are listed as threatened under the Flora and Fauna Guarantee Act 1988 and two are considered to be of regional significance (see Table 1 and Figure 1), including:

- Several mature Yarra Gum (*Eucalyptus yarraensis*) trees in the south-western section of the bushland area. Yarra Gum is listed as threatened under the FFG Act. The Ashbourne area supports many populations of this species.
- Two plants of Floodplain Fireweed (*Senecio campylocarpus*) on the northern fringe of the southern dam. This species is listed as threatened under the FFG Act but is not uncommon in wetland and riparian habitats across the region.
- The regionally significant Musky Caladenia (*Caladenia moschata*) and Slaty Helmet-orchid (*Corybas incurvus*) in the bushland area. Neither of these two species have previously been recorded in the Ashbourne area.

Table 1 Locally significant flora species recorded at 174 Muntz Road, November 2021

| Scientific Name       | Common Name         | Status                |
|-----------------------|---------------------|-----------------------|
| Caladenia moschata    | Musky Caladenia     | Regional              |
| Corybas incurvus      | Slaty Helmet-orchid | Regional              |
| Eucalyptus yarraensis | Yarra Gum           | Critically Endangered |
| Senecio campylocarpus | Floodplain Fireweed | Endangered            |

#### 2.2 Vegetation description

The bushland area at 174 Muntz Road is dominated by Narrow-leaf Peppermint (*Eucalyptus* radiata) and Candelbark (*Eucalyptus* rubida) with occasional Messmate Stringybark (*Eucalyptus* obliqua), Manna Gum (*Eucalyptus* viminalis) and Yarra Gum (*Eucalyptus* yarraensis).

The understorey contains a middle tree layer of Blackwood (*Acacia melanoxylon*) and Silver Wattle (*Acacia dealbata*) and a ground-layer supporting a rich diversity of small shrubs, grasses, lilies and herbs. These include Silky Daisy-bush (*Olearia myrsinoides*), Trailing Podolobium (*Podolobium procumbens*), Grey Parrot-pea (*Dillwynia cinerascens*), Red-anther Wallaby-grass (*Rytidosperma pallidum*), Yam Daisy (*Microseris walteri*), Common Everlasting (*Coronidium scorpioides*), Blue Pincushion (*Brunonia australis*), Chocolate Lily (*Arthropodium strictum*), Pale Vanilla-lily (*Arthropodium milleflorum*) and Milkmaids (*Burchardia umbellata*).

The treeless paddocks to the west and north are largely dominated by introduced pasture species, however the dams contain a mix of planted trees and shrubs and remnant wetland sedges and rushes such as Common Spike-sedge (*Eleocharis acuta*) and Hollow Rush (*Juncus amabilis*).



Plate 1 Significant flora species recorded at 174 Muntz Road, November 2021



Plate 2 Bushland in the southern area of the property supports a range of shrubs, grasses, orchids and lillies

## 2.3 High threat weeds

Of the weeds recorded within the property, nine are considered to be high threat species that are recommended for control. These species are listed in Table 2 below. All are scattered at low density throughout the property, although a concentration of introduced wattles occurs near the southern boundary of the bushland area adjacent to Einsporns Road.

Table 2 High threat weeds recorded at 174 Muntz Rd, November 2021

| Scientific Name      | Common Name         |  |
|----------------------|---------------------|--|
| Acacia baileyana     | Cootamundra Wattle  |  |
| Acacia floribunda    | White Sallow-wattle |  |
| Acacia howittii      | Sticky Wattle       |  |
| Acacia prominens     | Gosford Wattle      |  |
| Crataegus monogyna   | Hawthorn            |  |
| Cytisus scoparius    | English Broom       |  |
| Rosa rubiginosa      | Sweet Briar         |  |
| Rubus anglocandicans | Common Blackberry   |  |
| Ulex europaeus       | Gorse               |  |

#### 2.4 Fauna

During the November 2021 survey, a total of 21 fauna species were recorded, including 17 bird, two frog and two mammal species (see Appendix 2). The property would support a much greater diversity of fauna species, however due to the high mobility and cryptic nature of many species, it would take a survey across multiple years and seasons to prepare a detailed list.

Habitat features observed within the property included:

- Several large trees with hollows. These trees are essential for many local birds and mammals which rely on hollows for breeding.
- Scattered small to large logs. These are important for fauna that live or feed at ground level to provide cover from predators. Large-old logs often have hollows that may be utilised for shelter and nesting.
- Healthy litter layer, including sticks, leaves, bark and humus. A healthy litter lay is essential for many insects.
- Diverse plant community, providing food and habitat for various mammals, birds, insects and
  other fauna. Plant communities with many different species are better quality habitat than
  low diverse communities due to the variation in different flowers that attract specific insects.
   They are also more structurally diverse and provide better cover and shelter.
- The dams on the property provide habitat for frog species which rely on water for breeding, as well as a small diversity of water-bugs. They also serve as a source of drinking water for birds and mammals.

The bushland within the property is also connected to other extensive areas of bushland and is therefore an important part of a network of corridors that allow fauna to move across the landscape.

#### 2.5 Management issues and recommendations

Maintaining and enhancing the ecological values of the property will require protection of the bushland and occasional management. The following actions should be considered by the landowners:

- Control of high threat weeds shown in Table 2. Smaller plants can be removed by hand, however larger plants may need to be cut at ground level and painted with herbicide. If the

landowners wish to avoid using herbicide, plants can be regularly cut at ground level. They will continue to re-shoot but at least will be kept at a low height and will not spread further seed.

- Retention of as many logs across the bushland area as possible, particularly the larger ones.
- Additional areas for hollow dependant fauna could be provided by installing nest-boxes.
- Avoid excessive disturbance in the bushland areas, particularly where there are dense areas
  of wildflowers.
- Depending on the landowner's personal vision for the property, it would be of great value to plant additional habitat corridors in the treeless paddocks in the western and northern section of the property. A planted north-south corridor along the western boundary would serve as an important habitat link, allowing birds and other fauna to move across the landscape. Such a corridor should be planted with indigenous trees and shrubs such as Manna Gum (*Eucalyptus viminalis*), Swamp Gum (*Eucalyptus ovata*), Yarra Gum (*Eucalyptus yarraensis*), Narrow-leaf Peppermint (*Eucalyptus radiata*), Blackwood (*Acacia melanoxylon*), Silver Wattle (*Acacia dealbata*) and Tree Banksia (*Banksia marginata*).

## 3.0 CONCLUSION

A total of 118 flora species and 21 fauna species were recorded during the brief assessment, including several locally significance plant species. The property also supports important habitat and is part of a network of corridors that allow fauna species to disperse across the landscape.

Maintaining and enhancing the ecological values of the property will require protecting the bushland from excessive disturbance and control of high threat weeds.

Appendix 1 - Flora species recorded at 174 Muntz Road, November 2021

| Key to symbols |                               |
|----------------|-------------------------------|
|                | Introduced species            |
| *              |                               |
| #              | Non-indigenous native species |

| Status | Scientific Name                   | Common Name                | FFG Status |
|--------|-----------------------------------|----------------------------|------------|
| #      | Acacia baileyana                  | Cootamundra Wattle         |            |
|        | Acacia dealbata subsp. dealbata   | Silver Wattle              |            |
| #      | Acacia floribunda                 | White Sallow-wattle        |            |
|        | Acacia howittii                   | Sticky Wattle              |            |
|        | Acacia melanoxylon                | Blackwood                  |            |
| #      | Acacia prominens                  | Gosford Wattle             |            |
|        | Acaena novae-zelandiae            | Bidgee-widgee              |            |
| *      | Acetosella vulgaris               | Sheep Sorrel               |            |
|        | Acrotriche serrulata              | Honey-pots                 |            |
| *      | Agrostis capillaris               | Brown-top Bent             |            |
| *      | Aira elegantissima                | Delicate Hair-grass        |            |
|        | Anthosachne scabra s.s.           | Common Wheat-grass         |            |
| *      | Anthoxanthum odoratum             | Sweet Vernal-grass         |            |
| *      | Aphanes arvensis                  | Parsely-piert              |            |
|        | Arthropodium milleflorum s.s.     | Pale Vanilla-lily          |            |
|        | Arthropodium strictum s.s.        | Chocolate Lily             |            |
|        | Asperula scoparia subsp. scoparia | Prickly Woodruff           |            |
| *      | Briza minor                       | Lesser Quaking-grass       |            |
|        | Brunonia australis                | Blue Pincushion            |            |
|        | Burchardia umbellata              | Milkmaids                  |            |
|        | Caladenia moschata                | Musky Caladenia            |            |
|        | Carex appressa                    | Tall Sedge                 |            |
| #      | Carex inversa                     | Knob Sedge                 |            |
|        | Cassinia aculeata subsp. aculeata | Common Cassinia            |            |
| *      | Centaurium erythraea              | Common Centaury            |            |
|        | Centipeda elatinoides             | Elatine Sneezeweed         |            |
| *      | Cerastium glomeratum s.l.         | Common Mouse-ear Chickweed |            |
|        | Chiloglottis valida               | Common Bird-orchid         |            |
| *      | Cirsium vulgare                   | Spear Thistle              |            |
|        | Coronidium scorpioides s.s.       | Button Everlasting         |            |
|        | Corybas incurvus                  | Slaty Helmet-orchid        |            |
|        | Crassula decumbens var. decumbens | Spreading Crassula         |            |
| *      | Crataegus monogyna                | Hawthorn                   |            |
| *      | Cytisus scoparius                 | English Broom              |            |

| Status | Scientific Name                       | Common Name            | FFG Status               |
|--------|---------------------------------------|------------------------|--------------------------|
|        | Daucus glochidiatus                   | Native Carrot          |                          |
|        | Daviesia leptophylla                  | Narrow-leaf Bitter-pea |                          |
|        | Dianella admixta                      | Black-anther Flax-lily |                          |
|        | Dillwynia cinerascens s.s.            | Grey Parrot-pea        |                          |
|        | Drosera auriculata                    | Tall Sundew            |                          |
|        | Drosera peltata s.l.                  | Pale Sundew            |                          |
|        | Eleocharis acuta                      | Common Spike-sedge     |                          |
|        | Epacris impressa                      | Common Heath           |                          |
|        | Epilobium billardiereanum             | Variable Willow-herb   |                          |
|        | Eragrostis brownii                    | Common Love-grass      |                          |
|        | Eucalyptus obliqua                    | Messmate Stringybark   |                          |
|        | Eucalyptus radiata subsp. radiata     | Narrow-leaf Peppermint |                          |
|        | Eucalyptus rubida                     | Candlebark             |                          |
|        | Eucalyptus viminalis subsp. viminalis | Manna Gum              |                          |
|        | Eucalyptus yarraensis                 | Yarra Gum              | Critically<br>Endangered |
|        | Euchiton japonicus s.s.               | Creeping Cudweed       | Liluangereu              |
| *      | Galium aparine                        | Cleavers               |                          |
|        | Geranium sp. 2                        | Variable Crane's-bill  |                          |
|        | Glyceria australis                    | Australian Sweet-grass |                          |
|        | Gonocarpus tetragynus                 | Common Raspwort        |                          |
|        | Hardenbergia violacea                 | Purple Coral-pea       |                          |
|        | Hemarthria uncinata var. uncinata     | Mat Grass              |                          |
| *      | Holcus lanatus                        | Yorkshire Fog          |                          |
|        | Hovea heterophylla                    | Common Hovea           |                          |
|        | Hydrocotyle foveolata                 | Yellow Pennywort       |                          |
|        | Hydrocotyle hirta                     | Hairy Pennywort        |                          |
|        | Hydrocotyle sibthorpioides            | Shining Pennywort      |                          |
|        | Hypericum gramineum                   | Small St John's Wort   |                          |
|        | Hypericum japonicum                   | Matted St John's Wort  |                          |
| *      | Hypochaeris radicata                  | Flatweed               |                          |
|        | Isolepis fluitans                     | Floating Club-sedge    |                          |
| *      | Isolepis levynsiana                   | Tiny Flat-sedge        |                          |
|        | Isolepis marginata                    | Little Club-sedge      |                          |
|        | Isolepis platycarpa                   | Broad-fruit Club-sedge |                          |
|        | Isotoma fluviatilis subsp. australis  | Swamp Isotome          |                          |
|        | Juncus amabilis                       | Hollow Rush            |                          |
| *      | Juncus articulatus subsp. articulatus | Jointed Rush           |                          |
| #      | Juncus bufonius                       | Toad Rush              |                          |
|        | Juncus pallidus                       | Pale Rush              |                          |
|        | Juncus subsecundus                    | Finger Rush            |                          |
|        | Lagenophora stipitata s.l.            | Common Bottle-daisy    |                          |

| Status | Scientific Name                        | Common Name             | FFG Status |
|--------|--|-------------------------|------------|
| *      | Leontodon saxatilis subsp. saxatilis   | Hairy Hawkbit           |            |
| *      | Lolium perenne                         | Perennial Rye-grass     |            |
|        | Lomandra filiformis subsp. filiformis  | Wattle Mat-rush         |            |
|        | Lomandra longifolia subsp. exilis      | Cluster-headed Mat-rush |            |
|        | Luzula meridionalis var. flaccida      | Common Woodrush         |            |
|        | Microlaena stipoides var. stipoides    | Weeping Grass           |            |
|        | Microseris walteri                     | Yam Daisy               |            |
|        | Olearia myrsinoides                    | Silky Daisy-bush        |            |
|        | Opercularia varia                      | Variable Stinkweed      |            |
|        | Oxalis perennans                       | Grassland Wood-sorrel   |            |
| *      | Plantago lanceolata                    | Ribwort                 |            |
|        | Plantago varia                         | Variable Plantain       |            |
|        | Poa sieberiana var. sieberiana         | Grey Tussock-grass      |            |
|        | Poa sieberriana var. hirtella          | Grey Tussock-grass      |            |
|        | Podolobium procumbens                  | Trailing Podolobium     |            |
|        | Poranthera microphylla s.s.            | Small Poranthera        |            |
|        | Pteridium esculentum subsp. esculentum | Austral Bracken         |            |
|        | Ranunculus glabrifolius                | Shining Buttercup       |            |
|        | Ranunculus Iappaceus                   | Australian Buttercup    |            |
| *      | Rosa rubiginosa                        | Sweet Briar             |            |
| *      | Rubus anglocandicans                   | Common Blackberry       |            |
|        | Rytidosperma geniculatum               | Kneed Wallaby-grass     |            |
|        | Rytidosperma pallidum                  | Silvertop Wallaby-grass |            |
|        | Rytidosperma spp.                      | Wallaby Grass           |            |
|        | Schoenus apogon                        | Common Bog-sedge        |            |
|        | Senecio campylocarpus                  | Floodplain Fireweed     | Endangered |
|        | Senecio glomeratus                     | Annual Fireweed         |            |
|        | Senecio phelleus                       | Stony Fireweed          |            |
|        | Senecio quadridentatus                 | Cotton Fireweed         |            |
|        | Solenogyne gunnii                      | Hairy Solenogyne        |            |
|        | Stellaria pungens                      | Prickly Starwort        |            |
|        | Tetratheca ciliata                     | Pink-bells              |            |
|        | Thelymitra pauciflora s.l.             | Slender Sun-orchid      |            |
|        | Thelymitra spp.                        | Sun Orchid              |            |
|        | Tricoryne elatior                      | Yellow Rush-lily        |            |
| *      | Trifolium dubium                       | Suckling Clover         |            |
| *      | Trifolium subterraneum                 | Subterranean Clover     |            |
| *      | Ulex europaeus                         | Gorse                   |            |
|        | Veronica calycina                      | Hairy Speedwell         |            |
|        | Veronica gracilis                      | Slender Speedwell       |            |
| ų.     | Viola hederacea sensu Entwisle (1996)  | Ivy-leaf Violet         |            |
| *      | Vulpia bromoides                       | Squirrel-tail Fescue    |            |

| Status | Scientific Name                     | Common Name   | FFG Status |
|--------|-------------------------------------|---------------|------------|
|        | Wahlenbergia stricta subsp. stricta | Tall Bluebell |            |

## Appendix 2 - - Fauna species recorded at 174 Muntz Road, November 2021

| Key to symbols |                                      |
|----------------|--------------------------------------|
| *              | Introduced species                   |
|                | Recorded previously by the landowner |

| Status | Common name             | Scientific Name           | Туре   | FFG Status |
|--------|-------------------------|---------------------------|--------|------------|
|        | Australian Magpie       | Cracticus tibicen         | Bird   |            |
|        | Banjo Frog              | Limnodynastes dumerilii   | Frog   |            |
|        | Bare-nosed Wombat       | Vombatus ursinus          | Mammal |            |
|        | Brown Thornbill         | Acanthiza pusilla         | Bird   |            |
|        | Common Froglet          | Crinia signifera          | Frog   |            |
|        | Crimson Rosella         | Platycercus elegans       | Bird   |            |
|        | Eastern Grey Kangaroo   | Macropus giganteus        | Mammal |            |
| *      | Eurasian Skylark        | Alauda arvensis           | Bird   |            |
|        | Fan-tailed Cuckoo       | Cacomantis flabelliformis | Bird   |            |
|        | Grey Currawong          | Strepera versicolor       | Bird   |            |
|        | Grey Fantail            | Rhipidura albiscapa       | Bird   |            |
|        | Grey Shrike-thrush      | Colluricincla harmonica   | Bird   |            |
|        | Laughing Kookaburra     | Dacelo novaeguineae       | Bird   |            |
|        | Long-billed Corella     | Cacatua tenuirostris      | Bird   |            |
|        | Rufous Whistler         | Pachycephala rufiventris  | Bird   |            |
|        | Striated Pardalote      | Pardalotus striatus       | Bird   |            |
|        | Stubble Quail           | Coturnix pectoralis       | Bird   |            |
|        | Superb Fairy-wren       | Malurus cyaneus           | Bird   |            |
|        | Welcome Swallow         | Hirundo neoxena           | Bird   |            |
|        | White-necked Heron      | Ardea pacifica            | Bird   |            |
|        | Yellow-faced Honeyeater | Lichenostomus chrysops    | Bird   |            |